

CENTRAL CONNECTICUT HEALTH DISTRICT

SERVING THE TOWNS OF BERLIN, ROCKY HILL AND WETHERSFIELD

Central Office:
505 Silas Deane Highway
Wethersfield, CT 06109
Phone (860) 721-2822 Fax (860) 721-2823

Berlin Office:
240 Kensington Road
Berlin, CT 06037
Phone (860) 828-7017 Fax (860) 828-9248

Rocky Hill Office:
761 Old Main Street
Rocky Hill, CT 06067
Phone (860) 258-2770 Fax: (860) 258-2767

December 27, 2005

Take Your Vitamins Daily, and Be Sure to Include Folic Acid

January is a month characterized by optimism, a time to begin anew and become better, healthier, more informed individuals. But new lives begin every day of the year, and as individuals and a society, it is important to do everything we can to allow each new life to thrive and realize its full potential. For many years, the March of Dimes has recognized the importance of preventing birth defects for both the individual and the community, and has promoted practices that will enhance the quality of life.

This year, the week beginning January 9th has been designated Folic Acid Awareness Week. While folic acid may not be a common topic in family discussions, its importance in preventing birth defects has been known for many years. More recently, some studies indicate that folic acid may also protect both men and women from heart disease, stroke, cervical cancer, colon cancer, and possibly breast cancer.

Folic acid, or folate, is a B vitamin that is crucial for proper cell growth. It is found in foods such as leafy green vegetables like spinach and romaine lettuce, broccoli, asparagus, lentils, peanuts, orange juice, beans, fortified breakfast cereals and enriched breads and pasta. In fact, some foods, like breads, have been required to be fortified with folic acid in the United States since 1998. Also, most over-the-counter vitamins contain folic acid. The amount of folic acid recommended daily is 400 micrograms.

While everyone can benefit from taking a vitamin that contains folic acid every day, it is especially important for women of childbearing age to do so, because folic acid can prevent birth defects. It is an important supplement whether a pregnancy is planned or unplanned (which is the case in over 40% of pregnancies in the U.S).

Folic acid enables the proper development of the neural tube, which becomes a baby's brain and spinal cord. But it must be taken before conception and during early pregnancy to prevent birth defects involving the brain and spinal cord. Without adequate folic acid, the neural tube often does not close properly, causing neural tube defects (NTDs) in newborns. The Centers for Disease Control report approximately 4,000 babies are born in this country each year with NTDs that result in paralysis or death. Even though studies have shown that the risk of NTDs could be reduced by 50-70% with adequate folic acid, the percentage of American women taking folic acid supplements has dropped from 40% in 2004 to 33% in 2005, according to a report issued by the March of Dimes.

Three of the most common neural tube defects are spina bifida, anencephaly, and encephalocele, and they are the most severe types of birth defects that humans can experience. In encephalocele, the brain protrudes through the skull; the degree to which the child is impacted depends upon how much of the brain, and which part of the brain, protrudes.

Anencephaly occurs when the skull fails to close, and the infant is born with little or no brain. This condition usually causes death within hours or days of birth.

Spina bifida is a condition occurring in the first month of pregnancy in which the vertebral column fails to

surround the spinal cord completely. It may be mild, but 85% of those born with this condition have the most severe form, causing mild to severe mental retardation in 20% of children who survive to 5 years of age. The abnormalities that result from spina bifida result in a variety of conditions that require extensive care, such as paralysis, bowel and bladder incontinence, chronic urinary tract infections, kidney damage, altered skin sensations, numbness in the skin and joints, skin ulcers, club foot, scoliosis, neurological problems, and muscle imbalance leading to dislocated hips. Further, hydrocephalus (too much cerebrospinal fluid in the skull) is present in varying degrees in 70-90% of children born with spina bifida. Left untreated, the brain will atrophy. Children with a history of hydrocephalus often develop learning disabilities, and may have trouble paying attention, understanding language, learning to read, and mastering math. The hydrocephalus is relieved by surgically inserting a shunt to drain the fluid; the shunt must remain in place for the person's entire life.

According to the Spina Bifida Association, "the average lifetime cost to society for each newborn with spina bifida is approximately \$532,00 per child," with individual cases costing over \$1 million, and total estimated medical care and surgical costs exceeding \$200 million annually for all persons with this defect.

Birth defects can happen in any family without regard to race, ethnicity, income, or medical history. Nearly 95% of neural tube defects had no personal or family history of NTDs. But if every woman of childbearing age started taking folic acid every day, the risk of developing these disorders could be reduced up to 70%. And taking folic acid is easy—there is no known toxic level, so taking too much does not seem to be a concern.

To learn more about folic acid, contact the local chapter of the March of Dimes at 860-812-0080 (www.marchofdimes.com), the Food and Drug Administration (www.fda.gov), or the Centers for Disease Control at 888-232-6789 (www.cdc.gov.) More specific information about neural tube defects is available at the Spina Bifida Association at 800-621-3141 (www.sbaa.org). Additional information about this or other public health concerns is available at the Central Connecticut Health District at 860-721-2822 (www.ccthd.org.)